Chesapeake Bay TMDL - Stakeholder Advisory Committee

Wastewater Sector Workgroup
July 19, 2010, 1:00 p.m.
DEQ, Piedmont Regional Office

I. Welcome and Introductions

The wastewater workgroup met for the second time at 1:00 PM at the Department of Environmental Quality's Piedmont Regional Office. Two steering committee representatives, Tom Watkins and Chris Pomeroy, were present as co-chairs to take back the input received from the meeting. Workgroup members were provided with:

- The draft agenda
- Meeting summary from July 6th Wastewater Sector Workgroup meeting
- Tables of "VA Basin Loads – Nitrogen & Phosphorus"
- Working draft of the "Chesapeake Bay TMDL – Watershed Implementation Plan, Section 6 – Wastewater"
- 3/12/10 "VAMWA's Preliminary Comments on the Commonwealth's Proposed Nutrient Allocation Approach"
- 7/14/10 letter from Karen L. Pallansch to Alan Pollock re. Combined Sewer Systems and waste load allocations
- Members were updated on a question raised at the 7/6/10 meeting: if Nonsignificant Municipal Dischargers were given an allowance to expand to 40,000 gpd from their present capacities (< 40,000 gpd) before having to offset increased nutrient loads, it would utilize these additional amounts of existing waste load allocation, based on a total flow of 4.56 MGD:
    - 259,270 lbs/yr TN
    - 34,715 lbs/yr TP

II. Review and Discussion of the Scoping Scenarios Results

The results from the scoping scenarios (L2 & L3 using WSM ver. 5.3) were summarized:

- DCR's disclaimer: The EPA recognized issues with the runs, so the scoping scenarios are being rerun. The known issues include EPA over-accounting (doubling) for nutrient management. There were errors in both directions, so DCR does not know if the new numbers will go up or down.
    - DCR is not going to rename the new scoping scenario runs, just change the date. An expected date for the new results is unknown.
- Russ Perkinson of DCR explained that for the Potomac River Basin, the L2 model run achieved the 2025 draft allocation.
- The level of effort required by each basin is different due to its location relative to the Bay. In basins where L2 will not meet 2025 targets, the opportunity for nutrient and sediment load exchange will be a big part of achieving targeted allocations.

- Question: *Are state staff concerned about model results for the scoping scenarios? Will 'shortfalls' be better or worse with future, planned WSM revisions?*
  Answer: Can't speculate on future model results; but in the past, model output seemed to show wider differences between projected scenario loadings and reduction targets when revisions were applied.
- Al Pollock reminded the group of the Governor's recent letter to EPA raising concerns about reduced James River allocations to meet chlorophyll standards, and the predicted inability of L2 and L3 scenarios to achieve the lower target loads. If the James allocations were dependent on just their connection to main-Bay D.O. compliance, the James basin total TN allocation would be 3.31 MPY higher and the total TP allocation 0.35 MPY higher.

III. Review of the Working Draft Wastewater Section of the VA WIP

The next agenda item focused on the working draft of Virginia's wastewater section of the WIP. John Kennedy of DEQ explained the contents of the draft by breaking down each of the eight "Elements" required by EPA for the Watershed Improvement Plan and their April 2010 guidance on how review will be conducted. Feedback and questions were requested because the draft was written to invite the workgroup's input and comments.

Element 1: *Final Nutrient and Sediment Target Loads*

- Unknowns exist in the data tables presented: "TBD (to be determined)" in the "TN, TP, & TSS WLA Delivered column." This applies to the Nonsignificant Industrial WLA and delivered loads for all categories of wastewater facilities, because we don't currently have the WSM v. 5.3 *delivery factors*. DEQ needs the results from the Watershed Model Phase 5.3 for this information. Due to the changes in the model, there will be more accurate numbers presented in the future. Bill Keeling/DCR will forward to DEQ the information he has on revised delivery factors coming out of recent model runs.
- There are over 2,000 Nonsignificant Dischargers in the Bay watershed (municipal and industrial combined), and there is difficulty estimating specific loads for the industrials because of the lack of nutrient concentration monitoring data. Al Pollock asked the group's industrial representatives if they had an opinion about DEQ's proposed estimating methods for Nonsignificant Industrial loads, and the response was to use monitoring data where available, make reasonable assumptions about defaults or averages, and call for additional future monitoring for a short period to confirm assumptions.
- The WIP will not list individual loads for nonsignificant dischargers; facility names will be listed but the loads will be aggregated by segment-shed and river basin.
- EPA is adopting WLAs for regulated entities, which will call for initiating a data collection program as part of the Stage 1 implementation.
  - Given that NPDES permits are issued every 5 years, better information can be provided and there will be more efficient ways to find this information for Phase 3.

- DEQ is coming up with the best numbers they can. It is important to keep in mind that it is an aggregate for the source sector, not individual. Information about specific sources lies in the individual, local data systems (hard copies).
- Question: *Do the delivery factors change*?
  Response: Yes, the delivery factors will differ from L2 & L3.
- Question: *What about delivery factors for TSS*?
  Response: We need to get this information from the CBP modeling team.
- Question: *When will new delivery factors be available for review*?
  Response: Have DF's for L2 & L3 scenarios; should have information for the larger SAG by their August 24th meeting.

Element 2: *Current loading Baseline and Program Capacity*

Specific regulatory and statutory definitions of the classes of wastewater facilities in the WLA were included so that all have an understanding of the plants that are covered. "Current" loads are represented by 2009, which is the most recent monitoring information that has been run through the WSM to get delivered values. General assumptions were explained in setting the 2005 regulatory WLAs, for design flow and assumed concentrations.

- In Northern Virginia where the plants are so large that the discharges have a significant effect on water quality, DEQ set their WLA at state-of-the-art treatment.
- The EPA is looking at interstate and interbasin nutrient exchange. As long as model results show that water quality standards are achieved, trading should be allowed. Fortunately, the Nutrient Credit Exchange Program is already in place in Virginia.
- There are certain facts not included in the WIP draft, such as the ~50% increase in flow since 1985. This is in addition to the significant reductions achieved by the wastewater sector in the face of increased flows; in other words, the growth was completely offset. This is the condition under which we will be operating in the future – the TMDL means capping the pollution-related loads resulting from growth.
- Question: *When do reduction efforts officially start for purposes of calculating interim goals (e.g., 60% by 2017)*? *What is the 'baseline'*?
  Response: Although there have been reduction efforts since 1985, the baseline is set at 2009.
- Comment: *It is estimated that a minimum of $1.5 billion is required for the upgrades to meet allocation before the end of this permit term. Therefore, the benefits of the credit exchange are very important*.
- Question: *What's the possibility of point-to-nonpoint trading*?
  Response: This is allowable in the future for new or expanding facilities.

Element 3: *Accounting for Growth*

- Some accommodation for future growth is already built into the WLAs. Being based on design flow, most wastewater treatment facilities still have

capacity to grow into because they are only currently using about 65% of design capacity.

- Question: *Are non-significant facilities included in the tables*?
  Response: Nonsignificant municipals are included in tables; nonsignificant industrial are not included yet, but work continues on developing load estimates for the industrials.
- Comment: *A workgroup member voiced his concern that the numbers do not reflect long-term growth. It is important to understand that the planning district commissions have a different set of plans that are looking at growth in the Commonwealth differently. There will be divergence between the political policies being made and there should be outreach to these important constituencies.*
  Response: The draft is not precluding growth - a TMDL is not a limit on growth, it's a limit on pollution. The credit exchange program will address growth in a cost effective manner.
- Comment: *There are already examples in the watershed where outreach is occurring to bring the land development and planning entities into the TMDL process, such as the Rivanna area and Piedmont region.*

Element 4: *Gap Analysis*

- Using the WLAs in regulation, there is no gap to meet for wastewater. However, new or expanding facilities must completely offset their loadings, and there are classes of small dischargers that may need to be addressed to maintain the caps.
- Question: *What's the opportunity for additional reductions from the wastewater sector, beyond their current WLAs*?
  Response: Look at the delivered load figures for the E3 Scenario, which simulated use of state-of-the-art treatment at the Significant Dischargers.

Element 5: *Commitment and Strategy to Fill Gaps*

- There is the option of additional legislation or regulation requiring offsets for small dischargers.
- The Commonwealth needs to determine an approach for offsets for new Single Family Home and on-site (septic) systems before the situation occurs. Possible options include establishing a program run by local governments or other entities to coordinate offsets on behalf of individual homeowners.

Element 6: *Tracking and Reporting Protocols*

- Comment: *The draft's timeline and date goals should be worded to ensure flexibility so that there is the ability to reconfigure dates and not require a total rewrite of the WIP. The word "current" should be inserted before the annual reporting deadline for regulated wastewater facilities, because there may be legislative revisions proposed to give the owners more flexibility but still meet the intent of the reporting and credit exchange program.*

Element 7: *Contingencies for Slow or Incomplete Implementation*

- There are compliance and enforcement programs to ensure timely implementation of the wastewater requirements to meet WLA. Rather than

needing a contingency for this sector, it is anticipated that the wastewater nutrient loads will be low enough to offset other sectors that are gearing up their programs.

- Question: *Can the credit be shared with other sectors*?
  Response: For the 2 year milestone periods, only the bottom line TMDL needs to be achieved, so there could be opportunity for nutrient trading.
- All stakeholders need to recognize that if this is going to happen we need to show the importance that the wastewater sector has and deserves investment.

Element 8: *Appendix with Detailed Targets and Schedule*

- The CSS systems are so different from a planning point of view that DEQ drafted a separate WIP section for them. CSS systems will have their own allocation reflecting overflows that occur in the sewer system that flow into the river and also account for wet-weather flows into the localities' wastewater treatment system.
- Dealing with these allocations will be different than how we deal with discharges from wastewater plants because it is a hydrology driven issue that is tied to a BMP/long-term compliance plan.

IV. Discussion of recommendations and identification of issues that the workgroup would like to send to the SAG Steering Committee

- The TMDL pollution cap is forever. As we grow, the use of the exchange programs will be become more and more important.
- All three combined sewer systems have long-term control plans. It is important to have language in the draft that long-term goals are directed toward disinfection, and that expected nutrient reductions have already largely been achieved. The emphasis is that full implementation might not contribute significantly toward 2025 targets because long-term goals aren't geared toward N & P reductions.
- The Commonwealth is in communication with EPA in regard to the James River draft allocations contained in their July 1 letter.
  - Because of the current James allocations, it is difficult to move forward with a plan when there's an issue with allocations.
  - EPA did indicate last fall that if there are issues with N & P allocations, there will be the ability for exchange and potentially the trading of nutrients between river basins.
  - DEQ is still waiting to receive this information and intends to share when it is presented.
  - Question: *What is the process likely to be from this point forward for dealing with the James standards and issues*?
    Response: This issue will be addressed at the August 2nd steering committee meeting.
- Suggestion: *The wastewater workgroup needs one representative to attend other sector meetings. The point sources might want someone at other meetings to express their point of view and how much the Commonwealth has invested in wastewater*.

- Request: *Include more background information on combined sewers: how they operate, the intent of long-term control plans, and the interconnection with wastewater facilities treating wet weather flows.*
  Response: This will be included in the CSS section being drafted.
- Question: *Regarding the sediment question from before, is the TSS from point sources resulting in double counting P loads*?
  Response: This is not assumed to be the case since there are individual WLA for TP and TSS, but it will be confirmed as the WIP is finalized.
- The results from the wastewater sector meeting will be presented at the August 2nd steering committee meeting.